

IN THE CLAIMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

PENDING CLAIMS

1. (PREVIOUSLY PRESENTED) A picture matching processing system, comprising:
 - a window picture cutting part for cutting out a characteristic window picture group from previously captured pictures of a recognition target in different capturing environments;
 - a capturing environment variation influence evaluating part for evaluating influence of variations in the capturing environments of the cut out window picture group; and
 - a window picture selecting part for selecting a window picture in which the influence of variations in a capturing environment is at a predetermined level or less from among the cut out window picture group, based on results of the evaluation of the influence of variations in the capturing environments,wherein picture matching is conducted by using the selected window picture.
2. (PREVIOUSLY PRESENTED) The picture matching processing system according to claim 1, comprising a recognition target picture region cutting part for detecting a recognition target picture region from each picture of the previously captured pictures of the recognition target, and setting the recognition target picture region as a window picture in the cut out window picture group.
3. (PREVIOUSLY PRESENTED) The picture matching processing system according to claim 1, wherein a capturing environment is a relative position and a relative direction between the recognition target and a camera.
4. (PREVIOUSLY PRESENTED) The picture matching processing system

according to claim 1, comprising a window picture selection result display part for displaying selection results of a window picture by the window picture selecting part, and a window picture selection correcting part for correcting selection of a window picture selected by the window picture selecting part.

5. (WITHDRAWN) A picture matching processing system, comprising:
a picture group input part for previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;
a first window picture cutting part for cutting out a first characteristic window picture group from each picture of the recognition target, based on a first standard in which variations in a capturing environment are not considered;
a second window picture cutting part for cutting out a second characteristic window picture group from each picture of the recognition target, based on a second standard in which variations in a capturing environment are considered; and
a robust window picture selecting part for selecting, as a robust window picture, a window picture contained both in the first window picture group cut out based on the first standard and in the second window picture group cut out based on the second standard,
wherein picture matching is conducted by using the selected robust window picture.

6. (WITHDRAWN) A picture matching processing system according to any one of claims 5, comprising a recognition target picture region cutting part for detecting a recognition target picture region from each picture of the picture group, and setting the recognition target picture region as a cut out picture group.

7. (WITHDRAWN) A picture matching processing system according to any one of claims 5, wherein the capturing environment is a relative position and a relative direction between a recognition target and a camera.

8. (WITHDRAWN) A picture matching processing system according to any one of claims 5, comprising a window picture selection result display part for displaying selection results of a window picture by the window picture selecting part, and a window picture selection correcting part for correcting selection of a window picture by the window picture selecting part.

9. (WITHDRAWN) A picture matching processing system, comprising:
a picture group input part for previously capturing a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;
a first window picture cutting part for cutting out a first characteristic window picture group from each picture of the recognition target, based on a first standard in which variations in a capturing environment are not considered;
a second window picture cutting part for cutting out a second characteristic window picture group from each picture of the recognition target, based on a second standard in which variations in a capturing environment are considered; and
a robust window picture set selecting part for
setting a window picture group in which window pictures correspond to each other in the same site of the recognition target as a window picture set, among the window pictures cut out from each picture, and
selecting, as a robust window picture set, a window picture set contained both in the first window picture group and in the second window picture group,
wherein picture matching is conducted by using the selected robust window picture set.

10. (WITHDRAWN) A picture matching processing system according to claim 9, wherein the picture group previously captured by the picture group input part is a picture group composed of a plurality of series of pictures captured of a recognition target while continuously varying a capturing environment,
the first standard is a standard for tracking each site of the recognition target in the series of pictures of the picture group, thereby cutting out a window picture set; and
the second standard is a standard for cutting out characteristics window pictures from each picture of the picture group as independent pictures.

11. (ORIGINAL) A picture matching processing system, comprising:
a picture group input part for previously capturing a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;
a window picture cutting part for cutting out a characteristic window picture group from each picture of the recognition target;
a feature value calculating part for calculating a feature value representing features of the cut out window pictures; and

a stable window picture selecting part for
setting a window picture group in which window pictures correspond to each other
in the same site of the recognition target as a window picture set, among the window pictures cut
out from each selected picture,
comparing feature values of the window pictures contained in the window picture
set, and
selecting, as a stable window picture, only a window picture set in which a
variation width of the feature value is within a predetermined threshold value,
wherein picture matching is conducted by using the selected stable window picture.

12. (ORIGINAL) A picture matching processing system according to claim 11,
wherein the picture group is a continuous picture group in which a capturing environment is
continuously changed, and
in comparison of the feature values of the window pictures contained in the window
picture group, a feature value of the window picture cut out from a first picture of the continuous
picture group, a feature value of the window picture cut out from a last picture of the continuous
picture group, and a feature value of the window picture cut out from at least one selected
intermediate picture are compared with each other.

13. (ORIGINAL) A picture matching processing system according to any one of
claims 11, comprising a recognition target picture region cutting part for detecting a recognition
target picture region from each picture of the picture group, and setting the recognition target
picture region as a cut out picture group.

14. (ORIGINAL) A picture matching processing system according to any one of
claims 11, wherein the capturing environment is a relative position and a relative 10 direction
between a recognition target and a camera.

15. (ORIGINAL) A picture matching processing system according to any one of
claims 11, comprising a window picture selection result display part for displaying selection
results of a window picture by the window picture selecting part, and a window picture selection
correcting part for correcting selection of a window picture by the window picture selecting part.

16. (PREVIOUSLY PRESENTED) A picture matching processing system, comprising:

- a picture group input part for previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;

- a window picture cutting part for cutting out a characteristic window picture group from each picture of the recognition target;

- a feature value calculating part for calculating a feature value representing features of the cut out window pictures; and

- a projecting part for setting a window picture group in which window pictures correspond to each other in the same site of the recognition target, among the window pictures cut out from each selected picture, and projecting the window picture group onto an eigen space having the feature value as a parameter, in accordance with the feature value,

wherein the projecting part, in selecting a window picture used for projection, selects a window picture cut out from a first picture of the continuous picture group, a window picture cut out from a last picture of the continuous picture group, and a window picture cut out from a selected intermediate picture in the continuous picture group, in accordance with a projection point tracking precision,

wherein picture matching is conducted by using the selected window pictures.

17. (PREVIOUSLY PRESENTED) A computer-readable recording medium storing a processing program controlling a picture matching processing system according to a process comprising:

- cutting out a characteristic window picture group from previously captured pictures of a recognition target in different capturing environments;

- evaluating influence of variations in the capturing environments of the cut out window picture group; and

- selecting a window picture that is unlikely to be influenced by the variations in a capturing environment under a predetermined standard from among the cut out window picture group, based on results of the capturing environment variation influence evaluating ,

wherein picture matching is conducted using the selected window picture.

18. (PREVIOUSLY PRESENTED) A computer-readable recording medium storing a processing program for realizing a picture matching processing system, the program comprising:

picture group input processing of previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;

window picture cutting processing of cutting out a characteristic window picture group from each picture of the recognition target;

feature value calculating processing of calculating a feature value representing features of the cut out window picture group; and

window picture selecting processing of preferentially selecting a window picture in which variations in a feature value caused by a difference in a capturing environment are small, among the window picture group cut out from each picture of the recognition target,

wherein picture matching is conducted by using the selected window picture.

19. (PREVIOUSLY PRESENTED) A computer-readable recording medium storing a processing program for realizing a picture matching processing system, the program comprising:

picture group input processing of previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;

window picture cutting processing of cutting out a characteristic window picture group from each picture of the recognition target;

feature value calculating processing for calculating a feature value representing features of the cut out window picture group; and

window picture selecting processing of comparing feature values of the window pictures corresponding to each other in a same site of the recognition target as a window picture set, among the window pictures cut out from each selected picture, and selecting only a window picture set in which a difference in a feature value is within a predetermined threshold value,

wherein picture matching is conducted by using the selected window picture.

20. (ORIGINAL) A computer-readable recording medium storing a processing program for realizing a picture matching processing system, the program comprising:

picture group input processing of previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;

window picture cutting processing of cutting out a characteristic window picture group from each picture of the recognition target;

feature value calculating processing of calculating a feature value representing features of the cut out window pictures; and

stable window picture selecting processing of setting a window picture group in which window pictures correspond to each other in the same site of the recognition target as a window picture set, among the window pictures cut out from each selected picture, comparing feature values of the window pictures contained in the window picture set, and selecting, as a stable window picture, only a window picture set in which a variation width of the feature value is within a predetermined threshold value,

wherein picture matching is conducted by using the selected stable window picture.

21. (ORIGINAL) A computer-readable recording medium storing a processing program for realizing a picture matching processing system, the program comprising:

picture group input processing of previously inputting a plurality of pictures of a recognition target in different capturing environments to organize them as a picture group;

window picture cutting processing of cutting out a characteristic window picture group from each picture of the recognition target;

feature value calculating processing of calculating a feature value representing features of the cut out window pictures; and

projecting processing of setting a window picture group in which window pictures correspond to each other in the same site of the recognition target, among the window pictures cut out from each selected picture, and projecting the window picture group onto an eigen space having the feature value as a parameter, in accordance with the feature value,

wherein the projecting processing, in selecting a window picture used for projection, selects a window picture cut out from a first picture of the continuous picture group, a window picture cut out from a last picture of the continuous picture group, and a window picture cut out from a selected intermediate picture in the continuous picture group, in accordance with a projection point tracking precision,

wherein picture matching is conducted by using the selected window pictures.